Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Currently amended) A method of defining printer media and inking intensity ~~comparability~~ compatibility in a printing system comprising the steps of:

identifying a printer and a substrate for use in color printing;

printing a color test pattern of a plurality of test patches with the identified printer and the identified substrate;

generating a tone scale curve for each ink in the color test pattern using the plurality of test patches;

selecting one limiting condition for the identified printer and substrate;

determining an upper ink limit based on ink and substrate parameters; and

using the upper ink limit to generate a tone scale to calibrate any ink color on any substrate for the printing system.

2. (Currently amended) A method as claimed in claim 1 wherein the step of generating a tone scale curve comprises the steps of:

measuring ~~plotting~~ the color test pattern in L*a*b* color space referenced from substrate color; and

using Euclidian distance from the substrate color as a measure of color intensity.

3. (Original) A method as claimed in claim 2 further comprising the steps of:

fitting a curve to the L*a*b* data plot defined by the substrate color;

linearly increasing applied ink level to a specified upper ink limit ; and

deriving a corresponding one dimensional transform that will operate on imaging data to force the imaging data to conform to a predetermined data.

4. (Original) A method as claimed in claim 3 further comprising the step of generating a transfer function that produces a linear relationship from the substrate color to a maximum ink limit in L*a*b* color space.

5. (Original) A method as claimed in claim 1 wherein the plurality of test patches linearly increase in applied inking level over an entire dynamic range of the printing system.

6. (Original) A method as claimed in claim 1 further comprising the step of using a spectrophotometer to scan the color test pattern to determine a three-dimensional color coordinate of each of the plurality of test patches and the substrate.

7. (Original) A method as claimed in claim 1 wherein the step of determining an upper ink limit comprises the steps of:

determining a first upper ink limit for preferred color text;

determining a second upper ink limit for graphics.

8. (Canceled)

9. (Currently amended) A method as claimed in claim ~~8~~ 7 wherein the upper ink limit of each ink color in a printing is derived from a subjective determination of the total upper ink limit.

10. (Original) A method as claimed in claim 1 wherein the upper ink limit of each ink color in a printing used for graphics is derived from a subjective determination of the total upper ink limit.

11. (Original) A method as claimed in claim 1 wherein the upper ink limit of each of the colors in a printing for text is derived from the subjective determination of the total upper ink limit for the preferred text color.

12. (Canceled)

13. (Original) A method as claimed in claim 1 wherein the color test pattern comprises a test pattern containing image and graphics data that brackets a usable range of ink loading over a range of acceptable substrates for color printing operations to determine a suitable upper ink limit on a particular substrate.

14. (Original) A method of defining printer media and inking intensity compatibility in a printing system comprising the steps of:

identifying a printer having a plurality of inks and a substrate for use in color printing;

printing a color test pattern with the identified printer and the identified substrate;

employing a portion of the color test pattern for generating a tone curve for each of the plurality of inks;

employing a portion of the color test pattern for determining the threshold for excessive ink coverage for the identified printer and substrate; and

re-calibrating a range of tone scale to remain below the threshold of excessive ink coverage for the plurality of inks on the identified substrate.

15. (Original) A method of defining printer media and inking intensity compatibility in a printing system as claimed in claim 14 wherein the test pattern comprises sub patterns printed with increasing ink coverage levels for identifying the threshold for excessive ink coverage.

16. (Original) A method of defining printer media and inking intensity compatibility in a printing system as claimed in claim 15 wherein the increasing ink coverage levels span a range of thresholds for excessive ink coverage for a variety of substrates.

17. (Original) A method of defining printer media and inking intensity compatibility in a printing system as claimed in claim 14 wherein the color test pattern comprises a pattern which identifies when ink bleed is excessive due to ink coverage exceeding the threshold for excessive ink coverage.

18. (Original) A method of defining printer media and inking intensity compatibility in a printing system as claimed in claim 14 wherein the color test pattern comprises a pattern which identifies when ink drying time is excessive due to ink coverage exceeding the threshold for excessive ink coverage.

19. (Original) A method of defining printer media and inking intensity compatibility in a printing system as claimed in claim 14 wherein the color test pattern comprises a pattern which identifies when ink bleed through is excessive due to ink coverage exceeding the threshold for excessive ink coverage.

20. (Original) A method of defining printer media and inking intensity compatibility in a printing system as claimed in claim 14 wherein the color test pattern comprises a pattern which identifies when paper curl is excessive due to ink coverage exceeding the threshold for excessive ink coverage.

21. (New) A method of determining substrate and ink compatibility in a printing system comprising the steps of:

providing a test pattern having a range of ink loading levels and including test features corresponding to at least one of text and graphics;

identifying a substrate to be used with the printing system;

identifying an ink set to be used with the printing system;

printing the test pattern on the identified substrate using the identified ink set;

selecting an ink loading level for at least one of the at least one of text and graphics using the test pattern; and

generating a tone scale transformation for one or more ink colors of the identified ink set using the selected ink loading level for at least one of the at least one of text and graphics, wherein the selected ink loading level for the at least one of the at least one of text and graphics is dependent on the identified substrate.

22. (New) A method as claimed in claim 21, further comprising:

applying the tone scale transformation to at least one of image, graphics, and text data.

23. (New) A method as claimed in claim 21, wherein selecting the ink loading level for at least one of the at least one of text and graphics using the test pattern comprises selecting a maximum ink loading level for at least one of the at least one of text and graphics using the test pattern.

24. (New) A method as claimed in claim 21, wherein the test pattern includes patterns for identifying an ink and substrate incompatibility condition.

25. (New) A method as claimed in claim 24, wherein the patterns for identifying the ink and substrate incompatibility condition comprise patterns for identifying at least one of bleed between colors, reverse text fill, substrate cockle, and show through to a back side of the substrate.

26. (New) A method as claimed in claim 24, further comprising using graduated ink loading levels in the determination of ink and substrate incompatibility to identify at least one of bleed between colors, reverse text fill, substrate cockle, and show through to the back side of the substrate.

27. (New) A method as claimed in claim 21, wherein the test pattern includes tone scale test blocks usable to generate the one or more tone scale transformations.